

**Claims: What is claimed is:**

1. A fixed wireless network extender comprises:
  - (a) a processor unit where CPU running system software and networking software.
  - (b) two system buses to which wireless and wired networking unit can be attached to
  - (c) a control unit monitors and controls the performance of the radio units
  - (d) plurality of wireless networking radio units
  - (e) plurality wired networking units to connect to wired network
2. The processor unit of claim 1 is the system platform as well as networking functionality platform, so that network packets are exchanged among the wireless and wired interfaces.
3. The number and type of the said wireless networking radio units of Claim 1 can be selected and installed to fit different networking application, so that to configure the fixed wireless network extender.
4. The wireless networking radio units of Claim 3 are the same types of radio working at different channel.
5. The wireless networking radio units of Claim 3 are totally different types of wireless networking radio.
6. The wireless networking radio units of Claim3 are same type of radio isolated by fixed directional antenna, thereby no interference among them.
7. The radio control units of claim1 are an optional units when radio units need outside hardware controls, said radio control unit may be omitted when the

networking device of claim 1 is configured with all the radio units that do not apply additional performance control.

8. The wireless networking radio units of claim 1 may be built on the same PCB, and configure the device by turn on and off each unit.

9. The wired networking units of claim 1 may be built on the same PCB, and configure the device by turn on and off each units.